#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-011755 Address: 333 Burma Road **Date Inspected:** 30-Jan-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 645 **Project Name:** SAS Superstructure **OSM Departure Time:** 1845 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes No Li Yang **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes N/A **Delayed / Cancelled:** No

> **Component:** OBG

**Summary of Items Observed:** 

34-0006

On this day CALTRANS OSM Quality Assurance Inspector (QA) Joe Alaniz was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

**OBG** Assembly Yard

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The member(s) is/are identified as Connection plates and Z plates. The weld designations reviewed are as follows:

5BW+5CW

**Bridge No:** 

- 1. SSD16-PP032- 093, 094
- 2. SSD18-PP034- 093, 094
- 3. SSD10A-PP032-093, 094
- 4. SSD12A-PP034- 093, 094

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7BE+7CE

Flux Core Arc Welding (FCAW) repair (VT) welding was performed on various side palate t stiffeners located on cross the beam side of segment. Welder is identified as Mr. Dong Changxi (070046). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-FCAW-2G (2F)-Repair-1.

Flux Core Arc Welding (FCAW) welding was performed on weld joints 009 and 010 located at OBE7C on bike path side of segment. Welder is identified as Mr. Chen Zhenghua (220067). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-T-2233T.

Flux Core Arc Welding (FCAW) welding was performed on weld joints 009 and 010 located at OBE7C on bike path side of segment. Welder is identified as Mr. Zhen Yi (067949). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-T-2233T.

6AW

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 031 located at SEG027B on counter weight side of segment. Welder is identified as Mr. Han Xiaofeng (054467). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-1G (1F)-FCM-Repair-1 and WR 1143 repair procedure.

5CW

Flux Core Arc Welding (FCAW) repair welding was performed on t stiffener member RS420 located on cross beam side of segment. Welder is identified as Mr. Niu Duojun (037932). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-FCAW-3G (3F)-Repair-1 and WR 10535 repair procedure.

5BW

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 074 located at SEG023E on cross beam side of segment. Welder is identified as Mr. Han Xiaofeng (054467). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-1G (1F)-Repair-1 and WR 9494 repair procedure.

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 168 located at SSD22-PP32.5 on cross beam side of segment. Welder is identified as Mr. Dai Lu (048659). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-1G (1F)-Repair-1 and WR 9494 repair procedure.

5AE

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 004 located at CA018 on cross

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beam side of segment. Welder is identified as Mr. Wang Zhengbin (216086). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-2G (2F)-Repair-1 and CWR 1089 repair procedure.

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 021 located at SEG028B on cross beam side of segment. Welder is identified as Mr. Li Wenguo (066261). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-1G (1F)-FCM-Repair-1 and CWR 1146 repair procedure.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

#### **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (150-0042-2372), who represents the Office of Structural Materials for your project.

Inspected By:	Alaniz,Joe	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer